Serial Number: 09/202,681 A

ENTERED

- [ ] Changed a file from non-ASCII to ASCII
- [ ] Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- [ ] Edited a format error in the Current Application Data section, specifically: _____
- [ ] Edited the Current Application Data section with the actual current number. The number inputted by the applicant was [ ] the prior application data; or [ ] other _____.
- [ ] Added the mandatory heading and subheadings for "Current Application Data".
- [ ] Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- [ ] Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- [ ] Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- [ ] Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- [ ] Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- [ ] Inserted colons after headings/subheadings. Headings edited included: _____
- [ ] Deleted extra, invalid, headings used by an applicant, specifically: _____
- [ ] Deleted: [ ] non-ASCII "garbage" at the beginning/end of files; [ ] secretary initials/filename at end of file; [ ] page numbers throughout text; [ ] other invalid text, such as_____.
- [ ] Inserted mandatory headings, specifically: _____
- [ ] Corrected an obvious error in the response, specifically: _____
- [ ] Edited identifiers where upper case is used but lower case is required, or vice versa.
- [ ] Corrected an error in the Number of Sequences field, specifically: _____
- [ ] A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- [ ] Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- [✓] Other: Authorized edit: Sequence #14, changed length from 34 to 31 nucleotides.

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1652

RAW SEQUENCE LISTING   DATE: 10/11/2000
PATENT APPLICATION: US/09/202,681A   TIME: 16:29:36

Input Set : A:\Cpg.pto
Output Set: N:\CRF3\10112000\I202681A.raw

SEQUENCE LISTING
1 (1) GENERAL INFORMATION:
2   (i) APPLICANT: Recombinant Biocatalysis, Inc.
3   (ii) TITLE OF INVENTION: THERMOSTABLE PHOSPHATASES
11   (iii) NUMBER OF SEQUENCES: 51
12   (iv) CORRESPONDENCE ADDRESS:
13   (A) ADDRESSEE: Fish & Richardson P.C.
14   (B) STREET: 4225 Executive Square, Suite 1400
15   (C) CITY: La Jolla
16   (D) STATE: CA
17   (E) COUNTRY: USA
18   (F) ZIP: 92037
20   (v) COMPUTER READABLE FORM:
21   (A) MEDIUM TYPE: Diskette
22   (B) COMPUTER: IBM Compatible
23   (C) OPERATING SYSTEM: Windows 95
24   (D) SOFTWARE: FastSEQ for Windows Version 2.0b
26   (vi) CURRENT APPLICATION DATA:
C--> 27   (A) APPLICATION NUMBER: US/09/202,681A
C--> 28   (B) FILING DATE: 23-Dec-1999
29   (C) CLASSIFICATION:
31   (vii) PRIOR APPLICATION DATA:
32   (A) APPLICATION NUMBER: 08/686,857
33   (B) FILING DATE: 19-JUN-1996
35   (A) APPLICATION NUMBER: 60/033,752
36   (B) FILING DATE: 19-JUN-1997
38   (viii) ATTORNEY/AGENT INFORMATION:
39   (A) NAME: Haile, Ph.D., Lisa A.
40   (B) REGISTRATION NUMBER: 38,347
41   (C) REFERENCE/DOCKET NUMBER: 09010/015W01
43   (ix) TELECOMMUNICATION INFORMATION:
44   (A) TELEPHONE: 619/678-5070
45   (B) TELEFAX: 619/678-5099
46   (C) TELEX:
48 (2) INFORMATION FOR SEQ ID NO: 1:
50   (i) SEQUENCE CHARACTERISTICS:
51   (A) LENGTH: 52 base pairs
52   (B) TYPE: nucleic acid
53   (C) STRANDEDNESS: single
54   (D) TOPOLOGY: linear
55   (ii) MOLECULE TYPE: cDNA
58   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
60 CCGAGAATTC ATTAAAGAGG AGA AATTAAC TATGGGGGCA GGTCCGAAAA GG   52
62 (2) INFORMATION FOR SEQ ID NO: 2:
64   (i) SEQUENCE CHARACTERISTICS:
65   (A) LENGTH: 51 base pairs
66   (B) TYPE: nucleic acid

```
67          (C) STRANDEDNESS: single
68          (D) TOPOLOGY: linear
70     (ii) MOLECULE TYPE: cDNA
72     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
74  CCGAGGATCC TCACCGGGGT CTGCCGCTGC G                              51
76  (2) INFORMATION FOR SEQ ID NO: 3:
78     (i) SEQUENCE CHARACTERISTICS:
79          (A) LENGTH: 52 base pairs
80          (B) TYPE: nucleic acid
81          (C) STRANDEDNESS: single
82          (D) TOPOLOGY: linear
84     (ii) MOLECULE TYPE: cDNA
86     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
88  CCGAGAATTC ATTAAAGAGG AGAAATTAAC TATGTTGGAT ATACTGCTTG TT          52
90  (2) INFORMATION FOR SEQ ID NO: 4:
92     (i) SEQUENCE CHARACTERISTICS:
93          (A) LENGTH: 32 base pairs
94          (B) TYPE: nucleic acid
95          (C) STRANDEDNESS: single
96          (D) TOPOLOGY: linear
98     (ii) MOLECULE TYPE: cDNA
100    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
102  CCGACGATCC TTATTTTTA ACCAAATGTT CC                              32
104  (2) INFORMATION FOR SEQ ID NO: 5:
106    (i) SEQUENCE CHARACTERISTICS:
107         (A) LENGTH: 52 base pairs
108         (B) TYPE: nucleic acid
109         (C) STRANDEDNESS: single
110         (D) TOPOLOGY: linear
112    (ii) MOLECULE TYPE: cDNA
114    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
116  CCGACAATTC ATTAAAGAGG AGAAATTAAC TATGATGATG CAATTCACTC CC          52
118  (2) INFORMATION FOR SEQ ID NO: 6:
120    (i) SEQUENCE CHARACTERISTICS:
121         (A) LENGTH: 31 base pairs
122         (B) TYPE: nucleic acid
123         (C) STRANDEDNESS: single
124         (D) TOPOLOGY: linear
126    (ii) MOLECULE TYPE: cDNA
128    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
130  CGGACGATCC CTACAGTTCT AAAGTCTT TA                               32
132  (2) INFORMATION FOR SEQ ID NO: 7:
134    (i) SEQUENCE CHARACTERISTICS:
135         (A) LENGTH: 52 base pairs
136         (B) TYPE: nucleic acid
137         (C) STRANDEDNESS: single
138         (D) TOPOLOGY: linear
140    (ii) MOLECULE TYPE: cDNA
142    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
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PAW SEQUENCE LISTING   DATE: 10/11/2000
PATENT APPLICATION: US/09/202,681A   TIME: 16:29:36

          Input Set : A:\Cpg.pto
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111   CCGACAATTG ATTAAAGAGG AGAAATTAAC TATGAGAACC TTGACAATAA AC     52
116  (2) INFORMATION FOR SEQ ID NO: 8:
118       (i) SEQUENCE CHARACTERISTICS:
119             (A) LENGTH: 31 base pairs
150             (B) TYPE: nucleic acid
151             (C) STRANDEDNESS: single
152             (D) TOPOLOGY: linear
151       (ii) MOLECULE TYPE: cDNA
155       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
158   CCGAGGATCC TTACACCCAC AGAACCCTTA C                            31
160  (2) INFORMATION FOR SEQ ID NO: 9:
162       (i) SEQUENCE CHARACTERISTICS:
163             (A) LENGTH: 52 base pairs
164             (B) TYPE: nucleic acid
165             (C) STRANDEDNESS: single
166             (D) TOPOLOGY: linear
168       (ii) MOLECULE TYPE: cDNA
170       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
172   CCGACAATTC ATTAAAGAGG AGAAATTAAC TATGAAAGGA AAGTCTCTTC TT     52
174  (2) INFORMATION FOR SEQ ID NO: 10:
176       (i) SEQUENCE CHARACTERISTICS:
177             (A) LENGTH: 31 base pairs
178             (B) TYPE: nucleic acid
179             (C) STRANDEDNESS: single
180             (D) TOPOLOGY: linear
182       (ii) MOLECULE TYPE: cDNA
181       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
186   CCGAGGATCC TCAAGCTTTC TGGAGAATCA A                            31
188  (2) INFORMATION FOR SEQ ID NO: 11:
190       (i) SEQUENCE CHARACTERISTICS:
191             (A) LENGTH: 52 base pairs
192             (B) TYPE: nucleic acid
193             (C) STRANDEDNESS: single
194             (D) TOPOLOGY: linear
196       (ii) MOLECULE TYPE: cDNA
199       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
208   TCGACAATTC ATTAAAGAGG AGAAATTAAC TATGCCAAGA AATATCGCCG CT     52
202  (2) INFORMATION FOR SEQ ID NO: 12:
204       (i) SEQUENCE CHARACTERISTICS:
205             (A) LENGTH: 34 base pairs
206             (B) TYPE: nucleic acid
207             (C) STRANDEDNESS: single
208             (D) TOPOLOGY: linear
210       (ii) MOLECULE TYPE: cDNA
212       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
214   CCGAGGATCC TTAAGGCTTC TCGAGGTGGG GGTT                         34
216  (2) INFORMATION FOR SEQ ID NO: 13:
218       (i) SEQUENCE CHARACTERISTICS:
219             (A) LENGTH: 54 base pairs
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RAW SEQUENCE LISTING   DATE: 10/11/2000
PATENT APPLICATION: US/09/202,681A   TIME: 16:29:36

          Input Set : A:\Cpg.pto
          Output Set: N:\CRF3\10112000\I202681A.raw

220   (B) TYPE: nucleic acid
221   (C) STRANDEDNESS: single
222   (D) TOPOLOGY: linear
224   (ii) MOLECULE TYPE: cDNA
226   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
228 CCGAGAATTG ATTAAAGAGG AGAAATTAAC TATGTATAAA TGGATTATTG AGGG   44
230 (2) INFORMATION FOR SEQ ID NO: 14:
232   (i) SEQUENCE CHARACTERISTICS:
233   (A) LENGTH: 31 base pairs
234   (B) TYPE: nucleic acid
235   (C) STRANDEDNESS: single
236   (D) TOPOLOGY: linear
238   (ii) MOLECULE TYPE: cDNA
240   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
242 CCGAGGACTA AACATAGTGT AAGTAATTGG C   31
244 (2) INFORMATION FOR SEQ ID NO: 15:
246   (i) SEQUENCE CHARACTERISTICS:
247   (A) LENGTH: 52 base pairs
248   (B) TYPE: nucleic acid
249   (C) STRANDEDNESS: single
250   (D) TOPOLOGY: linear
252   (ii) MOLECULE TYPE: cDNA
254   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
256 CCGAGAATTG ATTAAAGAGG AGAAATTAAC TATGAGAATG CTCCTCACCA AC   52
258 (2) INFORMATION FOR SEQ ID NO: 16:
260   (i) SEQUENCE CHARACTERISTICS:
262   (A) LENGTH: 31 base pairs
262   (B) TYPE: nucleic acid
263   (C) STRANDEDNESS: single
264   (D) TOPOLOGY: linear
266   (ii) MOLECULE TYPE: cDNA
268   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
270 CCGAGGATGG TCACAGCCTG AGAAGCCTTT G   31
272 (2) INFORMATION FOR SEQ ID NO: 17:
274   (i) SEQUENCE CHARACTERISTICS:
275   (A) LENGTH: 51 base pairs
276   (B) TYPE: nucleic acid
277   (C) STRANDEDNESS: single
278   (D) TOPOLOGY: linear
280   (ii) MOLECULE TYPE: Genomic DNA
282   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
284 CCGAGAATTG ATTAAAGAGG AGAAATTAAC TATGGAAAAC TTAAAAAAGT ACCT   54
286 (2) INFORMATION FOR SEQ ID NO: 18:
288   (i) SEQUENCE CHARACTERISTICS:
289   (A) LENGTH: 31 base pairs
290   (B) TYPE: nucleic acid
291   (C) STRANDEDNESS: single
292   (D) TOPOLOGY: linear
294   (ii) MOLECULE TYPE: cDNA

RAW SEQUENCE LISTING   DATE: 10/11/2000
PATENT APPLICATION: US/09/202,681A   TIME: 10:20:30

Input Set : A:\Cpg.pto
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296      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:
298    CAGAGGATCA TCACCGCCCC CTCCGGGTCC C                          31
300   (2) INFORMATION FOR SEQ ID NO: 19:
301       (i) SEQUENCE CHARACTERISTICS:
302           (A) LENGTH: 783 base pairs
303           (B) TYPE: nucleic acid
305           (C) STRANDEDNESS: single
307           (D) TOPOLOGY: linear
309      (ii) MOLECULE TYPE: Genomic DNA
311      (ix) FEATURE:
311           (A) NAME/KEY: Coding Sequence
312           (B) LOCATION: 1..780
314      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:
316    ATG AGG GGG AGC GGA GTG CGG ATA CTT CTC ACC AAC GTT GAC GGC ATC    48
317    Met Arg Gly Ser Gly Val Arg Ile Leu Leu Thr Asn Asp Asp Gly Ile
318     1               5                  10                  15
320    TTT GGC GAG GGT CTG GGG GCT CTG CGC AAG ATG CTG GAG CCC GTG GCT    96
321    Phe Ala Glu Gly Leu Gly Ala Leu Arg Lys Met Leu Glu Pro Val Ala
322         20                  25                  30
324    ACC CTT TAC GTG GTG GCT CCG GAC CGA GAG CGT AGC GCC GCC AGC CAT   144
325    Thr Leu Tyr Val Val Ala Pro Asp Arg Glu Arg Ser Ala Ala Ser His
326         35                  40                  45
328    GCT ATC ACC GTT CAC CGC CCC CTG CGG GTG CGG GAG GCG GGT TTT CGC   192
329    Ala Ile Thr Val His Arg Pro Leu Arg Val Arg Glu Ala Gly Phe Arg
329         50                  55                  60
332    AGC CCC AGG CTT AAA GGC TGG GTA GTG GAC GGT ACC CCG GCC GAC TGC   240
333    Ser Pro Arg Leu Lys Gly Trp Val Val Asp Gly Thr Pro Ala Asp Cys
334     65                  70                  75                  80
336    GTC AAG CTG GGC CTG GAG GTA CTT TTC CCC GAA CGT CCA GAT TTC CTG   288
337    Val Lys Leu Gly Leu Glu Val Leu Leu Pro Glu Arg Pro Asp Phe Leu
338                     85                  90                  95
340    GTT TCG GGC ATA AAC TAC GGC CCC AAC CTG GGT ACC GAC GTA CTT TAC   336
341    Val Ser Gly Ile Asn Tyr Gly Pro Asn Leu Gly Thr Asp Val Leu Tyr
342                    100                 105                 110
344    TCC GGC ACC GTC TCG GCG GCC ATA GAA GGG GTA ATT AAC GGC ATT CCC   384
345    Ser Gly Thr Val Ser Ala Ala Ile Glu Gly Val Ile Asn Gly Ile Pro
346                    115                 120                 125
348    TCG GTG GCC GTA TCT TTG GCC ACG CGG CGG GAG CCG GAC TAT ACC TGG   432
349    Ser Val Ala Val Ser Leu Ala Thr Arg Arg Glu Pro Asp Tyr Thr Trp
350                    130                 135                 140
352    GCG GCC CGG TTC GTC CTG GTC CTG CTG GAG GAA CTG CGA AAA CAC CAA   480
353    Ala Ala Arg Phe Val Leu Val Leu Leu Glu Glu Leu Arg Lys His Gln
354    145                 150                 155                 160
356    CTG CCC CCA GGA ACC CTG CTC AAC GTC AAC GTG CCC GAC GGG GTG CCC   528
357    Leu Pro Pro Gly Thr Leu Leu Asn Val Asn Val Pro Asp Gly Val Pro
358                    165                 170                 175
360    AGC GGG GTC AAG GTG ACC AAA CTG GGA AGC GTA CGG TAC GTC AAC GTG   576
361    Arg Gly Val Lys Val Thr Lys Leu Gly Ser Val Arg Tyr Val Asn Val
362                    180                 185                 190
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VERIFICATION SUMMARY   DATE: 10/11/2000
PATENT APPLICATION: US/09/202,681A   TIME: 16:29:37

Input Set : A:\Cpg.pto
Output Set : N:\CRF3\10112000\I202681A.raw

L:27 M:230 C: Keyword misspelled or invalid format. [(A) APPLICATION NUMBER:]
L:28 M:220 C: Keyword misspelled or invalid format. [(B) FILING DATE:]